

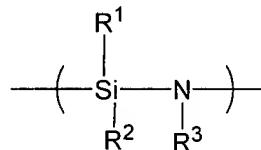
Clean Copy of Amended New Claims

23. A method of forming a patterned insulating film comprising: a step in which a coated film is formed of a photosensitive polysilazane composition comprising a polysilazane and a photoacid generator, a step in which said coated film is exposed to light in a pattern, a step in which the exposed portion of said coated film is dissolved off, and a step in which the patterned polysilazane film formed as a result of said dissolving off is allowed to stand in an ambient atmosphere or baked to convert it to a silica-based ceramic coating, wherein said polysilazane is

a polysilazane having a number-average molecular weight of between 100 to 50,000, that mainly contains the skeleton represented with the following general formula (I), or a modification product thereof containing such polysilazane, or

a polysilazane having a number-average molecular weight of between 100 to 100,000, that mainly contains the skeleton represented with the following general formula (II), and wherein

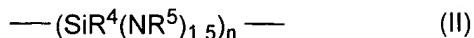
the said photoacid generator is at least one type of compound selected from the group consisting of a peroxide, a naphthoquinone diazidosulfonate ester and a nitrobenzyl ester:



general formula (I):

wherein, R¹, R² and R³ respectively and independently represent a hydrogen atom, an alkyl group, an alkenyl group, a cycloalkyl group, an aryl group, a group other than these groups in which the portion bonded directly to silicon or nitrogen is carbon, an alkylsilyl group, an alkylamino group or an alkoxy group;

general formula (II):



wherein, R⁴ and R⁵ respectively represent a hydrogen atom, an alkyl group, an alkenyl group, a cycloalkyl group, an aryl group, a group other than these groups in which the portion bonded directly to silicon or nitrogen is carbon, an alkylsilyl group; an alkylamino group or an alkoxy group, and n is an arbitrary integer.

24. A method of forming a patterned insulating film according to claim 23, wherein said polysilazane is a polyorganosiloxazane having a number-average molecular weight of between 300 to 100,000 that contains, as its main repeating unit, -(RSiN₃)-, -(RSiN₂O)-, -(RSiNO₂)- and -(RSiO₃)- in which R is an alkyl group, an alkenyl group, a cycloalkyl group, an aryl group, and alkylamino group or an alkylsilyl group.

25. A method of forming a patterned insulating film according to claim 23, wherein said peroxide is t-butyl peroxybenzoate, 3,3',4,4'-tetra(t-butylperoxycarbonyl) benzophenone or α,α' -bis(t-butylperoxy)diisopropylbenzene.

26. A method of forming a patterned insulating film according to claim 23, wherein said photoacid generator further contains an sensitizing dye.

27. A method of forming a patterned insulating film according to claim 26, wherein said sensitizing dye is selected from coumarin, ketocoumarin and their derivatives and thiopyrylium salts.

28. A method of forming a patterned insulating film according to claim 23, wherein said photosensitive polysilazane composition further contains an oxidation catalyst.

29. A method of forming a patterned insulating film according to claim 28, wherein said oxidation catalyst is palladium propionate.